Two cases of hemihypertonia post apoplectica are recorded. The contractures in spinal cord diseases in peripheral nerve involvements and in muscle diseases are considered. Attention is called to the resemblance of the contractures found in paralysis agitans and arthritis deformans, substantiating Spiller's observation. The treatment of contractures is next considered. (Author's Abstract.)

6. *Tabes and Cerebro-Spinal Syphilis.* Two cases of cerebro-spinal syphilis are reported that, both climically and pathologically, bore a very close resemblance to cases of tabes dorsalis; the degeneration in the spinal cord being practically confined to the posterior columns. It is pointed out that this form of degeneration would occur if the posterior roots had been compressed to the point of destruction by a syphilitic meningitis, also on account of the blood supply of the spinal cord the posterior columns would suffer severely in any process which, by affecting the meninges would interfere with the circulation in the centripetal system of arteries. In as much as the diagnosis between tabes dorsalis and these cases of syphilitic pseudo-tabes is often impossible it would be a wise measure to treat all cases in which tabes is suspected with a thorough course of anti-syphilitic remedies. (Author's Abstract.)

Deutsche Zeitschrift fur Nervenheilkunde.

(Band 24—Heft 5-6.)

11. The Abdominal Symptom-Complex in Disease of the Lower Dorsal Cord, Its Roots and Nerves. By Oppenheim.
12. Subcortical Alexia with Agraphia and Apraxia. By Strohmayer.
13. Contribution to the Casuistry of Transcortical Motor Aphasia. By Strohmayer.
14. Remarks Upon Stuttering. By Maas.
15. The Behavior of the Axis Cylinders in Multiple Sclerosis. By Bartels.
16. Contribution to the Casuistry of Acute Hemorrhagic Encephalitis. By Rosenfeld.
17. Hemihypertrophia Facialis Progressiva. By Hoffmann.
18. Contribution to the Etiology of Tabes, with Especial Consideration of the Relation Between Injury and Tabes. By Schittenhelm.
19. Micropsia and Macropsia. By Veraguth.
20. Certain Forms of Amusia, Illustrated by Examples. By Würtzen.
21. Two Cases of Hysteria Characterized by Transitory Absence of the Patellar Reflex. By Nonne.

11. *Disease of Lower Dorsal Cord.*—Oppenheim discusses at considerable length the so-called abdominal symptom-complex. This concerns chiefly the behavior of the abdomen, and particularly the abdominal reflex in various diseases of the muscles, nerves or spinal cord which cause irregularities in the movements of the abdominal wall. His first patient had almost complete paralysis of the muscles on the left side of the abdomen, with the reactions of degeneration, and loss of reflexes on the left side. When the patient contracted the abdominal muscles the umbilicus deviated to the right. The second case, a man of fifty, had paresis of the abdominal muscles of the right side, with deviation of the umbilicus to the left, and a weaker abdominal reflex. The third case, a man of thirty-eight, had paralysis of the muscles of the left half of the abdomen, and symptoms similar to those of the first case. The diagnosis in all the cases was that of neuritis. Somewhat similar symptoms are freqeuntly caused by tumors of the spinal cord. Oppenheim reports four cases of this condition. Two of spondylitis tuberculosa, and one of doubtful spinal syphilis. There was also a doubtful case of multiple sclerosis giving the abdominal symptom complex, one of acute anteriopoliomyelitis occurring in a man of twenty-eight, and one of progressive muscular dystrophy. Oppenheim believes that the paralysis or paresis of the abdominal muscles is the most valuable element in this system group. The abdominal reflex

is of less value, chiefly because it is not constant in healthy individuals. He separates the reflex into two parts; the supra and infra-umbilical. Not infrequently one part may be preserved and the other lost without any adequate explanation for the difference. In neurasthenia and in tabes dorsalis Oppenheim has found the reflex usually increased.

12. *Subcortical Alexia.*—Strohmayer reports the case of a man forty-five years of age, who gradually developed incapacity for work. This appeared to be purely psychical. There was difficulty in associating ideas, some depression, and an intense subjective feeling of interest. There was also very serious impairment of memory, involving even the names of his own children. . He was perfectly conscious of his mental deficiencies. He complained of pain in the left posterior parietal region with later tenderness in this region on percussion. There was literal and verbal paraphasia, loss of spontaneous writing and of writing to dictation. There was also complete loss of the ability to copy. The patient understood spoken words, was unable to read, but could recognize a few figures and letters correctly. There was no asteriognosia, but an inability, on the part of the right hand particularly, to use objects properly. He recognized correctly all objects held before him, and there was never hemianopsia. A diagnosis of brain tumor was made and a cyst was found in the left parietal region, about the size of an ordinary apple. This was evacuated, and eight hours later the patient died. The cyst was found to occupy a considerable area in the white substance of the left hemisphere. Strohmayer concludes that right-sided hemianopsia is a complication and not an invariable accompaniment of alexia; that alexia may be produced when the cortex and white substance of the gyrus angularis are not involved. He objects to the terms "cortical and subcortical aphasia," and would suggest the designation of isolated alexia, with or without agraphia.

13. *Transcortical Motor Aphasia.*—A man of sixty-seven, who had had an apoplectic attack four years previously, suffered from persistent disturbance of speech. He was able to understand what was said; he spoke spontaneously only when excited, which occurred very easily, or when he was questioned. He had difficulty in finding words, although his vocabulary was good. He was rarely able to name objects held before him, although he rarely used a false word. He was always able to select from a group any object whose name was given him. He could repeat words; there was paralexia, both literal and verbal; and he was unable to write the alphabet. Writing from dictation was fairly good, copying somewhat less satisfactory. At first he could read a few words and letters, but later there was absolute literal and verbal alexia. The patient had a second attack, as a result of which he died. Strohmayer regards it as a case of thrombosis followed by secondary ischemia. The two interesting features of the case were the persistence of the understanding of speech, and the fact that the patient was able to repeat a series of words fairly well.

14. *Stuttering.*—Maas discusses the various theories in regard to stuttering. In forty cases that he investigated he found an apparent hereditary element in eight. It is more common in males than in females. In nine of his cases the stuttering commenced just after a severe acute infection. Various other causes occurred so rarely that they cannot be considered important. In 40 per cent. of the cases there was a distinct deviation of the tongue when it was stretched out. In 18 per cent. of forty normal children of the same ages this anomaly was also seen. In the series of thirty-six boys, thirteen years of age, this deviation was only seen in 8 per cent. In 10 per cent. of his cases there was deviation of the lower jaw when the mouth was open. The chin-jerk was usually active, but chin clonus was never found. In two cases the chin-jerk was absent. There were slight alterations in the movements of the two sides of the face, and rather frequent facial asymmetry. After discussing various other

theories, Maas reaches the conclusions that stuttering must be regarded rather as a symptom than a disease, and in the majority of cases must be considered a neurosis.

15. *Axis Cylinders in Multiple Sclerosis.*—Bartels has made a series of longitudinal sections through the sclerotic areas in multiple sclerosis, after impregnation of the tissue with silver, according to Fajerstain's method. He finds the method more certain in its positive than in its negative results. In all areas investigated he found countless axis cylinders Even the oldest lesions were plentifully supplied. There could be no doubt, however, that the number of axis cylinders was reduced in the affected areas, particularly the finest axis cylinders appeared to be lost. Throughout the lesions the axis cylinders were swollen and surrounded by exceedingly fine neuroglia fibers, running parallel to its course. There was no evidence of regeneration. After a comparison with Bethe's and Kaplan's methods, Bartels reaches the conclusion that the myelo-axostroma of Kaplan is destroyed in multiple sclerosis, and that the fibrillary acid of Bethe is preserved.

16. *Hemorrhagic Encephalitis.*—A man of twenty-three, at the age of nineteen, had had syphilis for which he was not treated, developed first loss of intelligence, then some days later a maniacal condition followed by increasing somnolence. There was loss of pupillary reaction, ptosis on the left side, loss of reflexes and a pulse of forty. During the coma there were clonic spasms in the right upper extremity. The patient died in coma. The autopsy showed nothing sufficient to account for the clinical symptoms. The microscopical examination of the brain, however, showed a large encephalitic focal lesion in the left internal capsule, involving the lenticular nucleus and the optic thalamus. This region was characterized by enormous dilatation of the adventitious sheathes, which were filled with round cells. There was no sign of syphilitic change in the brain.

17. *Hemihypertrophy of Face.*—Hoffmann reports a case of hypertrophy of the right side of the face occurring in a girl of fourteen years. The thickening apparently involved chiefly the subcutaneous cellular tissue. There were no disturbance of any form of sensation, or any defect in muscular innervation. The disease commenced after the age of twelve, and was steadily progressive. Altogether only six cases of this condition have been described.

18. *Injury and Tabes.*—Schittenhelm has studied 128 certain cases of tabes, with special reference to etiology. Of these, sixty-four gave a definite history of syphilis; nineteen gave a probable history of syphilis, and forty-five gave no history that would in any way point to a previous syphilitic infection. Of the sixty-nine men with a history of syphilitic infection, twenty-nine gave a history of some form of possible injury, such as severe exertion, poisoning, chilling, hereditary predisposition, and in four cases actual injury. Of the remaining thirty-three cases, eighteen gave no etiological factor at all. Fifteen gave a history of injuries similar to those in the other group. Schittenhelm then gives a brief summary of the cases reported since Hetzig's publication, in which trauma may be regarded as a contributing cause. . In ten of these, traumatism was associated with some other condition. In seven cases it was apparently the sole cause. After the consideration of these cases, Schittenhelm reaches the conclusion that traumatic tabes sensu strictiori does not occur; rather, all cases in which tabes follows injury are to be associated with the injury only as the latter may be regarded as an assisting cause, either predisposing, or, when the predisposition already existed, developing a tabetic disease, or else causing a tabes already existing to become patent and rapidly to grow worse.

19. *Micropsia and Macropsia.*—Veraguth reports four cases of micropsia and macropsia. The condition usually occurs in the form of tran-

sient attacks. Veraguth discusses the various theories regarding the cause of this condition, and personally believes that it has its primary seat in the eye muscles, or their nervous control. These patients usually have difficulty in determining the distance of various objects.

20. *Amusia.*—Würtzen reports the case of a woman who, at the age of forty-nine, had an attack of apoplexy with complete aphasia and right hemiparesis. Following this there was complete loss of her musical sense, which had previously been so well developed that she had composed some very excellent songs. Curiously enough when she attempted to play the piano she had a complete recollection of the part for the left hand, but none of the part for the right hand. Even when she produced discords with the right hand she did not hear them, but apparently she retained her recollection of the melody. - A man of forty-eight, after an apoplectic attack, also had a loss of his musical sense, and ten years later, although otherwise almost completely recovered, this defect persisted. Würtzen believes that there are various factors concerned in the integrity of the musical sense; of these the most important are (1) the recollection of notes or pitch; (2) the sense of harmony and discord; and (3) the sense of time and rhythm. He concludes with a report of two cases of congenital absence of the musical sense.

21. *Hysteria and Patellar Reflex.*—The first patient, a man of twenty-tour had had hysteria for some years. He had various attacks of anesthesia, in the course of which it involved both legs from the level of the perineum. During this attack the patellar reflex at first could only be elicited by the aid of Jendrassik's phenomena; later it disappeared completely and remained absent for four weeks. There was also hypotonia. The patient was frequently observed for some time, and had various other hysterical stigmata. The second case, a man of thirty, had paresis of the muscles of the legs, with hyperesthesia for all forms of sensation and hypotonia. The patellar reflexes were diminished, and later were altogether absent, remaining so for a long period. He became insane and was transferred to the insane asylum. Nonne collects various similar cases from the literature. He surmises that in hysteria a more or less prolonged state of exhaustion of the tracts concerned in the production of the patellar reflex may occur, which causes it loss. J. Sailer (Philadelphia).

(Vol. 25, 1905, Nos. 1-4.)

1. Contribution to the Knowledge of Myotonia Congenita, Tetany with Myotonic Symptoms, Paralysis Agitans, and Some Other Diseases of the Muscles; to the Knowledge of Functional Hypertrophy and the Normal Structure of the muscles, by Schiefferdecker. With Clinical Contribution by Fr. Schultze.

1. *Myotonia Congenita.*—The present article, 345 pages in length, is adapted rathed to a book review than to an abstract. Schultze prefixes the histories of a case of congenital myotonia, from whose deltoid muscle a large piece was removed for histological examination, the case being remarkable for the existence of Chvostek's sign; and a case of tetany with a myotonic reaction apparently secondary to a stenosis of the pylorus and dilatation of the stomach. Portions of the muscle were preserved for histological examination. It is of the results of the histological examination of those muscular fragments, and further studies that resulted from them, that the present volume is composed. Having first discussed the defects in our knowledge regarding the histology of the muscles in congenital myotonia, Schiefferdecker summarizes the results of his own investigation as follows. There is hypertrophy of the fibres; proliferation of the nuclei with the formation of long chains; a peculiar substance in the sarcoplasm that indicates a specific change in it; no indication of degeneration, either in the form of vacuoles or breaking down of the fibres; and no splitting of the fibres. Schiefferdecker next studies very minutely the histology of the muscles from a series of subjects normal or suffer-

ing from slight muscular defects, and compares them with the muscles in the case of myotonia. He has also studied the sartorius of a dog who was so trained as to develop the muscle, and reaches the conclusion that the hypertrophy produced by continuous muscular effort (activity hypertrophy) does not correspond to the hypertrophy of myotonia congenita, but that the latter is probably a peculiar change due to a disease of the sarcoplasm. Then follow 4 careful histological studies upon the muscles of 2 women dying with tuberculosis; of a woman dying with paralysis agitans, and of the second case described by Schultze.

In all 4 the muscles showed atrophy and various changes which, although interesting, do not appear to elucidate our knowledge of the disease. His histological studies suggested the following general conclusions. That the size of the muscle fibre can be influenced by the nutrition, rigor mortis, or fixation; that amitotic multiplication of the muscle nuclei frequently occurs in adults; that the form of the muscle nucleus may vary considerably either in normal or diseased fibres, and their position may even in normal cases, be within the sarcolemma. In atrophy of the muscles, Schiefferdecker recognizes a stage of simple atrophy, and a stage of atrophic degeneration. In the latter the fatty infiltration of the muscle fibres disappears. In paralysis agitans not only the muscle fibres and the fibrils are diseased, but also the muscle spindles. The muscle nerves, however, are apparently normal. The method employed in these investigations also rendered it possible to determine various numerical facts regarding the volume of the nuclei, the relation of the nuclei to the muscle mass, the total mass of the nuclei, the average diameter of the fibres, and the recognition of morbid changes in conditions in which previously none had been found. In these long articles there is a mass of histological details not suitable for an abstract, but of great interest, and presumably of great importance to subsequent workers in the field of muscular histology. Nevertheless, the amount of important new material that serves to modify or enlarge our ideas regarding disease of the muscles is comparativly small. The paper is illustrated by some excellent plates and tables, and there is also a small collection of the literature. J. SAILER (Philadelphia.)

(Vol. 25, 1905, Nos. 5, 6.)

2. The Principle of the Direction of Movements of the Organisms; A Contribution to General and Special Pathology. JENDRASSIK.
3. The Pathogenesis of the So-Called Rheumatic Paralysis of the Face. V. SARBO.
4. The Pathogenesis of the So-Called Rheumatic Paralysis of the Face. the Pupil. REICHARDT.
5. The Significance of the Pathological Anatomical Findings in the Central Nervous System in Exophthalmic Goiter. KLIEN.
6. An Attempt to Classify the Posterior Columns of the Spinal Cord. GOLDSTEIN.
7. The Symptomatology and Pathological Anatomy of Cerebral Abscess. KOLPIN.
8. Brief Communications. "A Postscript to My Article:—Two Cases of Hysteria Characterized by Transient absence of the Patellar Reflex." NONNE.

2. *Direction of Movement.*—Jendrassik attempts to solve the question of the direction of action of the various muscles by the methodical application of certain general principles. He believes that in each limb there are 3 nerves, and 6 muscles that function very similarly. The primary position is that in which the muscle is not affected either by gravity or by antagonistic muscles. It is usually a position midway between extreme flexion and extension, adduction and abduction, and with the muscle as nearly as possible perpendicular to the ground. He believes that there are 6 planes of movement for the voluntary muscles. He then discusses the mechanism by which not only the movements of flexion and extension

are controlled within certain definite limits, but also the rotation of the limb in the joint. Then follows a minute study, not only of the action of the individual muscles affecting the different joints, but also of the action of different parts of these muscles. Finally he attempts to demonstrate by diagrams the great similarity in the essential structure of the various joints.

3. *Rheumatic Paralysis.*—Sarbo reports a case of a man and his two parents, the former having developed facial paralysis, first to the right, and then of the left side, and the parents each having facial paralysis on one side. In all cases exposure to cold had preceded the attack. He discusses the various theories, and believes that probably in cases of peripheral facial paralysis, especially of the familiar type, there is some deformity of the bony canal through which the nerve passes that renders it especially liable to injury.

4. *Reflex Pupillary Immobility.*—Reichardt reports the case of a man 67 years of age who had atrophy of the left optic nerve. In the early stages of the atrophy, when the patient's vision was poor in the left eye, the reaction to light was quite as good as in the normal eye. Later the reaction to light became somewhat sluggish in both eyes, but still remained equal. The left optic nerve was found flattened; the fine fibres were atrophic, but the thick normal fibres remained intact. This is merely a confirmation of the generally accepted view that the fine fibres relate to vision, and the thick fibres probably are concerned with the pupillary reactions. The sluggish pupillarly reactions are probably explained by degeneration of the posterior columns in the cervical portion of the spinal cord. Reichardt also reports the case of a girl suffering from epilepsy and athetosis of the left side, with complete paralysis of the right oculomotor nerve. There was also complete blindness of the right eye, but the eye-ground was normal, and the visual apparatus merely indicated a moderate degree of myopia. Later, a complete right-sided hemianesthesia for touch and pain, without destruction of the muscular and joint senses, and without ataxia, appeared, evidently hysterical in character. It appears doubtful, therefore, whether the amaurosis is due to a focal lesion or is hysterical in character. Finally, Reichardt states that the examination of the spinal cords in a number of cases of paretic dementia leads him to believe that there is a general form of degeneration of the posterior columns of the cervical portion of the spinal cord that is associated with pupillary immobility.

5. *Exophthalmic Goiter.*—Klien reports a fatal case of exophthalmic goiter. The patient died with temperature, and after death numerous ecchymoses were found in the mucous membranes. The pons, medulla oblongata, the upper portion of the cervical cord, and one of the cervical sympathetic nerves including the lowest cervical ganglion were examined microscopically. In a region occupying the floor of the 4th ventricle and the 2 middle thirds of the pons there was an area of hemorrhagic inflammation. Numerous recent hemorrhages were found in the floor of the 4th ventricle, and the unbroken ventricles were distended with blood. The veins were filled with leucocytes. In other portions undoubted evidences of inflammation were present. Degeneration was found in the roots of the 6th to 12th cranial nerves inclusive. In the spinal cord the cerebellar tract was degenerated. Other areas of degeneration were found, including Gowers' tract. The sympathetic ganglion cells were contracted, the pericellular space widened and it usually contained several round cells. The investigation of the thyroid gland showed proliferation of the acini. Klien tabulates 36 additional cases of exophthalmic goiter in which autopsies were performed with more or less satisfactory notes. Of the 37 cases including his own, changes were found in 24. In these there were circumscribed changes in the pons and medulla oblongata in 19; in the sinal cord in 10; in the cerebrum in 6; and in the cerebellum in 3. In 3 cases the lesion was circumscribed hyperemia; in 20, recent hemorrhages; in 5, accumulation of leucocytes outside the vessels; in 3, recent degenera-

tion of the fibres and ganglion cells; in 2, old hemorrhages; in 5, atrophy of the ganglion cells and tracts; in 3, acute softening. The commonest location of hemorrhage was the floor of the 4th ventricle. Klien classifies the cases also according to the clinical symptoms, and calls attention to the fact that in all those cases in which death was apparently caused solely by Basedow's disease, definite alterations were found. He then concludes that we cannot regard these lesions as the cause of Basdow's disease, but merely as the result of the action of the poison which produces it. The changes in the cervical sympathetic ganglion are also probably secondary to the poison, but may be the cause of certain symptoms of the disease, and in this manner explain the benefit which occasionally follows the resection of the ganglia in this disease.

6. *Posterior Columns of the Cord.*—Goldstein would divide the posterior columns of the spinal cord largely according to the functions of the groups of fibres. He suggests therefore, the term "the spinal area of sensibility" for the upper and lower portions of the body. He then gives a series of diagrams which show how these areas are divided at different levels of the spinal cord, and believes that his method serves to overcome the lack of clearness in the designations hitherto employed, and enables us to understand more clearly the posterior columns. The figures are too complicated to be described in an abstract.

7. *Cerebral Abscess.*—A man of 33 developed severe pain in the left side of the head with vomiting and chills. This lasted about 2½ months. Later there was psychical disturbance, and still later paralysis of the right arm, tenderness over the left side of the head on percussion, and bilateral optic neuritis. There was no perforation of the ear-drum. At the autopsy otitis media was found, and an abscess of the left parietal lobe causing increase in the size of the hemisphere. The actual abscess cavity was small. It was limited rather closely to the white substance of the second temporal convolution, which explains the existence of a partial sensory aphasia. The paralysis was evidently due to involvement of the internal capsule. Examination of the wall of the abscess showed that it was composed almost exclusively of the connective tissue arising from the walls of the blood vessels, the glia not sharing in its formation. It contained numerous cells showing fatty degeneration. Kölpin is of the opinion that in an acute abscess formation there is rapid breaking down and solution of the tissues; that in chronic abscess formation the enlargement is due first to the secretion of pus from the membrane, second to the breaking down and new formation of the capsule. He then discusses the various forms of cells found in the tissue, particularly the plasma, the epithelioid, and the granular cells.

8. *Patellar Reflex Hysteria.*—Nonne again disclaims priority in noting the absence of the patellar reflex in hysteria.

J. Sailer (Philadelphia.)

Miscellany

A Case of Tumor of the Spinal Cord Removed by Operation. By Bernard J. Ward. (The British Medical Journal, Oct. 28, 1905.)

The patient was a male, 24 years old. Four months after a fall downstairs, in which he struck his back, he began having intermittent attacks of pain in the lumbar region, which were diagnosed as lumbago. These attacks continued for eight years, when, in August, 1903, there was noticed a slight weakness in his legs and a few weeks later a numbness, first in the groin, but afterward extending on down the leg. By October, 1903, he had a complete spastic paraplegia with a marked hypasthesia extending up to a line midway between the pubes and umbilicus and passing over the crest of the illicum formed the midline behind at about the third lumbar spine. There was a girdle sensation about the abdomen at this level. The Babinski sign was present. There was no incontinence of urine. At